

## CLAIMS

1. A silica-containing rubber composition produced by filtering slurry of silica-containing rubber crumbs obtained by co-coagulating a mixture of rubber latex and silica to give a moisture content of 80 wt% or less, dehydrating by a dehydrator having a compression function, then, drying.
- 10 2. The silica-containing rubber composition as set forth in claim 1, further including a cationic substance.
- 15 3. The silica-containing rubber composition as set forth in claim 1, wherein said silica has a specific surface area of 40 to 230 m<sup>2</sup>/g, which is measured by cetyltrimethylammonium bromide (CTAB) adsorption.
- 20 4. The silica-containing rubber composition as set forth in claim 1, further including a cross-linking agent.
- 25 5. A cross-linking molding, molded by cross-linking the silica-containing rubber composition as set forth in claim 4.

6. The silica-containing rubber composition as set forth in claim 1, further including organopolysiloxane or a polyether-based polymer.

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7. The silica-containing rubber composition as set forth in claim 1, further including a silane coupling agent.

10 8. The silica-containing rubber composition as set forth in claim 1, wherein a moisture content is 5 wt% or less.

15 9. A production method of a silica-containing rubber composition, including:

a step (A) for mixing rubber latex and aqueous silica dispersions and obtaining a mixture of the rubber latex and silica;

20 a step (B) for co-coagulating the rubber in said mixture and silica and obtaining slurry of silica-containing rubber crumbs;

a step (C) for filtering said slurry and obtaining rubber crumbs having a moisture content of 80 wt% or less;

25 a step (D) for dehydrating said filtered

rubber crumbs by using a dehydrator having a compression function; and

a step (E) of drying said dehydrated rubber crumbs.

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10. The production method of a silica-containing rubber composition as set forth in claim 9, wherein an extruding machine having a barrel provided with a screw therein is used as said dehydrator.

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11. The production method of a silica-containing rubber composition as set forth in claim 10, wherein said filtered rubber crumbs are dehydrated after temporarily making an inner pressure of the barrel of said extruding machine higher than that at a normal operation.

12. The production method of a silica-containing rubber composition as set forth in claim 11, wherein a part or all of a crumb outlet of said extruding machine 20 is temporarily blocked on an initial or middle stage of an operation of said extruding machine.

13. The production method of a silica-containing rubber composition as set forth in claim 12, wherein a 25 part or all of the crumb outlet is blocked by filling

substance in said extruding machine.

14. The production method of a silica-containing rubber composition as set forth in claim 13, wherein 5 those including at least one of rubber, resin and ice are used as said filling substance.

15. The production method of a silica-containing rubber composition as set forth in claim 9, wherein said 10 dehydrated rubber crumbs are dried by a depressurizing operation or/and a heating operation.

16. The production method of a silica-containing rubber composition as set forth in claim 9, wherein said 15 dehydrated rubber crumbs are dried by a compressing operation and a decompression operation.